

REMARKS

Claims 1, 3-24 and 27-37 remain pending in this application. Claims 33-35 have been withdrawn from consideration. By this Amendment, claims 1 and 3 are amended. Claims 25 and 26 are canceled without prejudice to, or disclaimer of, the subject matter recited therein. Support for the amendment to claim 1 may be found in the specification at page 13, second and third paragraphs, of the originally filed document. The insertion of the unit "kg" after "2.16" is well-known to those skilled in the art of measuring melt flow rates. The amendment to claim 3 merely corrects dependency to preserve proper antecedent basis. No new matter is added.

In view of the foregoing amendments and the following remarks, reconsideration and allowance of the claims are respectfully requested.

I. Rejections Under 35 U.S.C. §103

The Office Action:

(1) rejects claims 1, 3, 4, 7-9, 23, 25, 27 and 29 under 35 U.S.C. §103(a) as allegedly being unpatentable over Bohm (US 5,338,589) in view of McCullough (US 4,493,923);

(2) rejects claims 5, 11-17, 24, 31, 32, 36 and 37 under 35 U.S.C. §103(a) as allegedly being unpatentable over Bohm in view of McCullough and further in view of Laiho et al. (EP 1449878);

(3) rejects claims 6, 10 and 30 under 35 U.S.C. §103(a) as allegedly being unpatentable over Bohm in view of McCullough and further in view of Lindahl (WO 00/71615);

(4) rejects claims 18-21 under 35 U.S.C. §103(a) as allegedly being unpatentable over Bohm in view of McCullough and Laiho et al. and further in view of Lindahl;

(5) rejects claims 22 and 28 under 35 U.S.C. §103(a) as allegedly being unpatentable over Bohm in view of McCullough and further in view of Ohlsson (US 2005/0037219); and

(6) rejects claim 26 as allegedly being unpatentable over Bohm in view of McCullough and further in view of Seppanen et al. (US 6,582,795).

By this Amendment, claim 26 is canceled, thus rendering the rejection moot as to that claim. As to the remaining claims, these rejections are respectfully traversed.

All rejections rest upon the combination of Bohm with McCullough, which combination Applicants submit is deficient with respect to the claims herein. Accordingly, Applicants' comments below are directed to the deficiencies of the combination of Bohm with McCullough, upon the propriety of which all rejections rise or fall.

Claim 1 differs from Bohm (US 5,338,589) in that the MFR₂ of the composition is 5 to 20 g/10 min. According to the Examiner, said feature is allegedly suggested by McCullough (US 4,493,923).

However, McCullough is concerned with improving the impact resistance of impact-modified propylene polymers, and is essentially unconcerned with polyethylene compositions. The McCullough the composition contains the following components:

- 50-95% by weight of an impact-modified propylene polymer;
- 2-45% by weight of a high density ethylene homopolymer;
- 2-45% by weight of alumnia low density ethylene copolymer; and
- 1-30% by weight of a rubber selected of a group consisting of ethylene-propylene rubber and ethylene-propylene-diene monomer rubber (col. 2/II. 31-38).

Hence, the components as required by claim 1 of the present application are only "additives" to the composition of McCullough. In this regard the composition of McCullough is comparable to the composition of Laiho (EP 1449878), cited in the previous office action. The fact that McCullough is directed to polypropylene compositions can also be seen from the passage referred to by the Examiner (col. 2, lines 27-30), which reads as follows

Specifically, the present invention deals with compositions having melt flows between about 5 and about 50 dg/min (ASTM D 1238-Condition L), ... (Emphasis added).

Condition L of ASTM D 1238 denotes 230°C and a load of 2.16 kg, which are the conditions used to measure polypropylenes. In contrast, the melt flow rate of the composition according to claim 1 is determined at 190°C, i.e. the temperature for polyethylenes. Further in this regard, please note that McCullough discloses the melt indices of the high density ethylene homopolymer and the liner low density ethylene copolymer all given in column 2, lines 50 and 58 as 0 to 20 dg/min (HDPE) and ≤ 16 dg/min (LLDPE), as measured under ASTM D 1238, Condition E.

However, as already stated above, McCullough aims at the improvement of polypropylene compositions. Hence, the components as required by claim 1 are only "additives" to the main polymer of McCullough, and McCullough cannot teach an MFR for a composition which is not based on polypropylene as the composition according to claim 1 of the present invention. In particular, since the McCullough compositions are mainly polypropylene, the compositions as a whole cannot have their melt flow rates determined by MFR₂ as defined in claim 1; i.e. at temperatures of 190 °C. Accordingly, the MFR₂ limitation of present claim 1 cannot be met by Bohm combined with McCullough. Withdrawal of the rejections is requested on this basis.

Additionally, Applicants submit that one skilled in the art would not look to McCullough, directed to polypropylene compositions, for motivation to modify polyethylene compositions, as disclosed by Bohm. Withdrawal of the rejections is further requested on this basis.

Furthermore, please note that according to McCullough, the HDPE is unimodal and not multimodal as required by claim 1 of the present invention. Hence, by referring to McCullough, the skilled person would be also taught to use a unimodal HDPE.

In addition, claim 1 now requires that the LDPE is an ethylene homopolymer, whereas Bohm and McCullough both recite linear low density polyethylenes which are necessarily copolymers. This can be seen from the enclosed excerpt of the Handbook of Polyethylene, "Structures, properties and applications", page 3. McCullough exclusively relates to linear low density polyethylenes. Bohm generally mentions low density polyethylenes in column 1, line 35. However, said low density polyethylene can be a homo- or copolymer. Furthermore, in the same passage, linear low density polyethylenes are described as a preferred option. Also, in column 6, lines 56 to 61, McCullough teaches that the weight ratio of HDPE to LLDPE is most preferably 30% HDPE and 70% LLDPE, whereas claim 1 of the present invention requires an HDPE:LDPE ratio of 40:60wt.% to 80:20wt. %.

Accordingly, reconsideration and withdrawal of all rejections is respectfully requested.

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IV. Conclusion

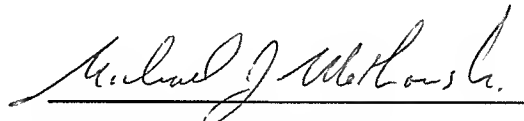
In view of the foregoing, it is respectfully submitted that the present claims are in condition for allowance. Prompt notification of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Account No. 50-2478 (13225).

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance; the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

Date: April 5, 2012

A handwritten signature in cursive script, reading "Michael J. Mlotkowski", written over a horizontal line.

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